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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,893	01/15/2004	John O. Ruid	D0932-00415	4749

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DUANE MORRIS, LLP
IP DEPARTMENT
30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103-4196

EXAMINER

PATTERSON, MARC A

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 12/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/757,893

Applicant(s)

RUID ET AL.

Examiner

Marc A. Patterson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 – 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews et al (U.S. Patent No. 6,148,867) in view of Noonan et al (U.S. Patent No. 5,783,268).

With regard to Claims 1 – 3 and 5, Matthews et al disclose a duct board material (column 1, lines 66 – 67; column 2, lines 1 – 13), comprising a fiber glass board having a density of 3.5 pounds per cubic foot (column 5, lines 11 – 19), a facing adhered to an exterior surface (a foil – scrim – kraft facing; column 5, lines 5 – 10) and a bonded, non – woven mat facing adhered to an interior surface (column 4, lines 45 – 57). Matthews et al fail to disclose a mat which has a plurality of parallel fibers oriented in a longitudinal direction of the duct board material.

Noonan et al teach a mat facing (column 3, lines 43 – 45) for a duct board (column 2, lines 4 – 7) having a plurality of parallel fibers oriented in a longitudinal direction of a duct board material (the longitudinal direction is machine direction; the fibers, are therefore parallel, and the facing therefore comprises parallel yarns embedded in the facing and preferentially oriented; column 3, lines 51 – 57) for the purpose of obtaining a mat facing having increased laminar flow adjacent to the duct board (column 2, lines 4 – 7). One of ordinary skill in the art would therefore have recognized the

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advantage of providing for the facing of Noonan et al in Matthews et al, which comprises duct board, depending on the desired laminar flow of the end product.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for a mat which has a plurality of parallel fibers oriented in a longitudinal direction of the duct board material in Matthews et al in order to obtain a mat facing having increased laminar flow adjacent to the duct board as taught by Noonan et al.

With regard to Claim 4, Noonan et al do not teach a facing which comprises slack; Noonan et al therefore teach yarns embedded in the facing without slack.

With regard to Claim 6, the mat facing taught by Noonan et al has a ratio of machine direction tensile strength to cross direction tensile strength of at least 2:1 (7 pounds per inch, minimum, in the machine direction and 5 pounds per inch in the machine direction; column 3, lines 45 – 50).

With regard to Claims 7 – 8, Matthews et al disclose an exterior facing comprising a foil – scrim – kraft facing (column 5, lines 5 – 7) and Matthews et al teach the interchangeability of a foil composite and a non – woven mat as facings (column 4, lines 51 – 57) and therefore teach an exterior facing which is a second bonded, non – woven mat.

With regard to Claims 9 – 12 and 14 – 16, the non – woven mat taught by Noonan et al includes glass filaments in a resinous binder (a saturated polyester / glass mat; column 3, lines 43 – 45).

With regard to Claim 13, the mat disclosed by Matthews et al is adhered to the duct board using an adhesive (tape; column 5, line 64).

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3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc A Patterson whose telephone number is 571-272-1497. The examiner can normally be reached on Mon - Fri 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marc Patterson 12/27/05
Marc A. Patterson, PhD.
Examiner
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